

CCCACGCGTCCGGGCTTTTGTCTCGTGGGCTGGTCCCGACGGGCTCCCTCCCGAACAGTGCTGCTCCAGGGAGGAAGC  
GGCGCGGGTGTCTCTCCAGCTTCCCCGTGCTGAAAACCGAGGGGCTCCTCATCCACCCTACCATGTAAGGGCCATGAGA

	M E E D L F Q L R Q L P V	13
AGGGCTCATCTCGCCGACGGGGAC	ATG GAG GAG GAC TTA TTC CAG CTA AGG CAG CTG CCG GTT	39
V K F R R T G E S A R S E D D T A S G E		33
GTG AAA TTC CGT CGC ACA GGC GAG AGT GCA AGG TCA GAG GAC GAC ACG GCT TCA GGA GAG		99
H E V Q I E G V H V G L E A V E L D D G		53
CAT GAA GTC CAG ATT GAA GGG GTC CAC GTG GGC CTA GAG GCT GTG GAG CTG GAT GAT GGG		159
A A V P K E F A N P T D D T F M V E D A		73
GCA GCT GTG CCC AAG GAG TTT GCC AAT CCC ACC GAT GAT ACT TTC ATG GTG GAA GAT GCA		219
V E A I G F G K F Q W K L S V L T G L A		93
GTG GAA GCC ATT GGC TTT GGA AAA TTT CAG TGG AAG CTG TCT GTT CTC ACT GGC TTG GCT		279
W M A D A M E M M I L S I L A P Q L H C		113
TGG ATG GCT GAT GCC ATG GAG ATG ATG ATC CTC AGC ATC CTG GCA CCA CAG CTG CAT TGC		339
E W R L P S W Q V A L L T S V V F V G M		133
GAG TGG AGG CTC CCA AGC TGG CAG GTG GCA TTG CTG ACC TCG GTG GTC TTT GTA GGC ATG		399
M S S S T L W G N I S D Q Y G R K T G L		153
ATG TCC AGC TCC ACG CTC TGG GGA AAT ATC TCA GAC CAG TAC GGC AGG AAA ACA GGG CTG		459
K I S V L W T L Y Y G I L S A F A P V Y		173
AAG ATC AGC GTG CTG TGG ACT CTG TAC TAT GGC ATC CTT AGT GCA TTT GCG CCC GTG TAT		519
S W I L V L R G L V G F G I G G V P Q S		193
AGC TGG ATC CTG GTG CTC CGG GGC CTG GTG GGC TTC GGG ATC GGA GGA GTT CCC CAG TCG		579
V T L Y A E F L P M K A R A K C I L L I		213
GTG ACG CTG TAT GCC GAG TTC CTT CCC ATG AAA GCC AGA GCT AAA TGT ATT TTG CTG ATT		639
E V F W A I G T V F E V V L A V F V M P		233
GAG GTA TTC TGG GCC ATC GGG ACA GTG TTC GAG GTC CTC CTG GCT GTG TTC GTG ATG CCC		699
S L G W R W L L I L S A V P L L L F A V		253
AGC CTG GGC TGG CGT TGG CTG CTC ATC CTC TCA GCT GTC CCG CTC CTC CTC TTT GCC GTG		759
L C F W L P E S A R Y D V L S G N Q E K		273
CTG TGT TTC TGG CTG CCT GAA AGT GCA AGG TAT GAT GTG CTG TCA GGG AAC CAG GAA AAG		819
A I A T L K R I A T E N G A P M P L G K		293
GCA ATC GCC ACC TTA AAG AGG ATA GCA ACT GAA AAC GGA GCT CCC ATG CCG CTG GGG AAA		879
L I I S R Q E D R G K M R D L F T P H F		313
CTC ATC ATC TCC AGA CAG GAA GAC CGA GGC AAA ATG AGG GAC CTT TTC ACA CCC CAT TTT		939
R W T T L L L W F I W F S N A F S Y Y G		333
AGA TGG ACA ACT TTG CTG CTG TGG TTT ATA TGG TTT TCC AAT GCA TTC TCT TAC TAC GGG		999

Figure 1

L V L L T T E L F Q A G D V C G I S S P	153
TTA GTT CTA CTC ACC ACA GAA CTC TTC CAG GCA GGA GAT GTC TGC GGC ATC TCC AGT CGG	1059
K K A V E A K C S L A C E Y L S E E D Y	1373
AAG AAG GCT GTA GAG GCA AAA TGC AGC CTG GCC TGC GAG TAC CTG AGT GAG GAG GAT TAC	1119
M D L L W T T L S E F P G V L V T L W I	393
ATG GAC TTG CTG TGG ACC ACC CTC TCT GAG TTT CCA GGT GTC CTT GTG ACT CTG TGG ATT	1179
I D R L G R K K T M A L C F V I F S F C	413
ATT GAC CGC CTG GGG CGC AAG AAG ACC ATG GCC CTG TGC TTT GTC ATC TTC TCC TTC TGC	1239
S L L L F I C V G R N V L T L L L F I A	433
AGC CTC CTG CTG TTT ATC TGT GTT GGA AGA AAT GTG CTC ACT CTG TTA CTC TTC ATT GCA	1299
R A F I S G G F Q A A Y V Y T P E V Y P	453
AGA GCG TTT ATT TCT GGA GGC TTT CAA GCG GCA TAT GTT TAC ACA CCT GAG GTC TAC CCC	1359
T A T R A L G L G T C S G M A R V G A L	473
ACG GCA ACG CGG GCC CTC GGC CTG GGC ACC TGC AGC GGC ATG GCA AGA GTG GGT GGT CTC	1419
I T P F I A Q V M L E S S V Y L T L A V	493
ATC ACT CCG TTC ATC GCC CAG GTG ATG CTG GAA TCC TCT GTG TAC CTG ACT CTG GCA GTT	1479
Y S G C C L L A A L A S C F L P I E T K	513
TAC AGT GGC TGC TGC CTC CTG GCT GCC CTG GCC TCC TGC TTT TTG CCC ATT GAG ACC AAA	1539
G G G L Q E S S H R E W G Q E M V G R G	533
GGC GGA GGA CTG CAG GAG TCC AGC CAC CGG GAG TGG GGC CAG GAG ATG GTC GGC CGA GGA	1599
M H G A G V T R S N S G S Q E *	549
ATG CAC GGT GCA GGT GTT ACC AGG TCG AAC TCT GGC TCT CAG GAA TAG	1647

TGACCGATGGGGGACTGAGCTGGTCTTTGAGGCTGCAGAGCTTGGGGGGCTGGCAGGCCCACTGGGGCACTGATTGT  
 CACTGCCGACATCAAGAACTCACCCAGAGTATGACCTGGACCAACAGGGTTTTGTGTCTTGACTCAGTTTGCTCATCT  
 TCATTGAGGTCCACCCAGGGATGGGGAGATGTTTGCTCTAGGGGGTTCTCTGTATATGTGGTGAAAGCTTTGTTCTATAA  
 CCTGTGGATCTACATGGGAAGACTACCCATATTAGGAGGGTCTGGTAATGCCAGCAACCAATCAGACACCACCCAGAGT  
 CACCCCGCCCAAACCCCTCAGTGAACAACCAAAATATCTCTGTAGATACCGTCCAGGCTCAGGCCCATGTGACACCTGC  
 TGTCCACCCACCGGACCTGTTTCAGTAGGTTTTCTCCACACCCACAGCCCCAGGCTTTCTTTCTTTGAAATTGCAGGCGAT  
 CTAGGTGTGGTCTGAGCAGCTATTTCTGGCAGGGGGCCCCCGGTTTGCCCTCCCTAGAGCCTGACCAGTGGATTCTCTG  
 GCAGATGGACATGGTGCATTCAAACCTGGAGCCACATGCCCCCAGCCCTNFTGGAGTTGCCCGTTGTTGGCACCA  
 AGAGATCCAGATGTGTCTGGGGACAGCTGGGTCTTGACCAGGTGACAACCTCAAAACGCCGTTACCCCTGGGGAAC  
 TGAGGACTGAGSGCCAAGTG

Figure 1 continued

\*wCFMAaFGGmFMFGWDTGVINGFvwMIdFhYRFgMmhydwtYl....S  
 + A+G F W V G +WM D + ++ ++ ++  
 132 EDAVEAIGF-GKFQWKLSVLTGLAWMADAMEMMILSILAPQLHCEWRLP 179  
  
 TMRWgLIVSIFnIGCMIGSIFfGWIGDMYGRRmsMMvNvIFIIGIIMI  
 + + +L +S ++G+M +S ++G+I+D YGR+ ++ +++++ +I+++  
 180 SWQVALLTSVVFVGMSSSTLWGNISDQYGRKTGLKISVLWTLYYGILSA 229  
  
 fSinySwwMYIIIGRIImGIGVGgISvlvPMYISEIAPkHlRGtMvSWYQL  
 F++ + +++ R ++G+G+GG + V +Y +E+ P + R +++ + ++  
 230 FAP--VYSWILVLRGLVGFVGIGGVPQSVTLY-AEFLPMKARAKCILLIEV 276  
  
 MITiGIFIAYCfNYgfnyYnNdsWQWRWPLGLcFIWAIfmIIGMMFIPES  
 +++IG ++ + +++ + + WRW+L+L++++ +++ +++++LPES  
 277 FWAIGTVFEVVLAVFVMPSLG----WRWLLILSAVPLLLFAVLCLFWLPES 322  
  
 PRWLVIkGriEEARrsLqRlRgwdDVDpEIQEMMDeIeaMiEEElagNaS  
 R+ V+ G+ E+A ++L+R+ ++ + + + + + + +  
 323 ARYDVLSGNQEKAIATLKRiATENGAPMPLGKLIISRQED-----RGK 365  
  
 WgELFrfrtPkMRWRiIMgMMIqIFQQFTGINYIMYYsTTIFesVGMq\*  
 + LF+ + RW +++ +I+++ ++ YY+ ++ ++ +Q  
 366 MRDLFTPHF---RWTTLLLWFIWFSN-----AFSYYGLVLLTTELFQ 404

Figure 2

1

GTCCGACCCACGCGTCCGAGCAAAGAGGATTACATGGACCTGCTGTGGACCACCCTGTCTG  
 AGTTCCCAGGTGTCTTGTGACTCTGTGGGTTCATCGACCGCCTGGGCCGCAAGAAGACCA  
 TGGCTCTGTGTTTCGTCATCTTTTCCCTCTGCAGCCTCCTGCTGTTTCATCTGCATTGGAA  
 GAAATGTGCTAACCCCTCTTACTGTTTCATTGCAAGAGCGTTTATTTCTGGAGGCTTCCAAG  
 CAGCCTACGTTTACACGCCTGAGGTGTATCCAACGGCGACGAGGGCGCTGGGCCTGGGCA  
 CCTGCAGCGGCATGGCGAGAGTGGGCGCGCTCATCACTCCATTCTATAGCTCAGGTGATGC  
 TGGAAATCTTCCGTGTACCTGACCCTGGCCGTCTACAGTGGCTGCTGCCTCCTTGTGCCT  
 TGGCCTCCTGCTTTCTGCCCCATCGAGACCAAAGGCCGAGCACTGCAGGAGTCCAGCCACC  
 GGGAGTGGGGCCAGGAGATGGTTGGCCGAGGGACAAACAGCACAGGCGTCCCCAGGTCTGA  
 ACTCTGGCTCTCAGGAGTAGTGACCCCTGGGAGTTGAGCTGGTCTTTGAGGCCGGAGCCT  
 AGAAAGCTGGCAGAGCCCAGCTGGGCCACTAACGGTCACTGCCGACATCAAGAACTTTCC  
 CCGAGTGGGCGAAGTGAACCGACAGGGTTTGTGTCTTCACTGTGTTTGGCCTATGTTCA  
 TCGAGGGTTGCCCCGCCCCAGGAAGATGGGGCTGCATTCACTCCAGGGGGTTCTTCCGTGG  
 TGGGGGAAAGGGTTGGTACGTCGCCGTGGATCTGCATGGGGGAAGCTGCTAGTGTGGGAG  
 GGTCCCAGGGCGCTCAGGGCCAGCTCAGCAGATGTACGTGGTTACCCAGTCATACCCTT  
 GGAGAGCCACTGTCCAAAGATCTCCATAGATACAGTCTCAGCCCAGACCCCTGTGACACC  
 CGCCATTTTGTCCAGTAAGTTTCTCCTGCACCCCTGGCCCCAGGATGTCTTTGGAATTAAG  
 ACAAGCTAATTAGTGTCCGACTAGAGCAGCTTTTCTGGAGCCTGAGACACCCCCCTCCCC  
 GTTGCTTCCTTGGTTGGGCCCCCTCTAGATGTCTTTTCAAGGGCCTGCCGGGTAGAACTGA  
 CTGAAGAATGTGCTTGTGAATTTGAGCCAAGCATCATCCCCATTGACCCCTTCTGGAGC  
 CTCTGTCTCTGGCTGCAGAGGGTCTGTATTATTTCTGGGGAGAGCTAGGTACCCACCAG  
 GCGACAGACCCAGAAAATTGTTAACCCATTCCCTGTCTTGGAAATCGGAGAGTGAGGCCT  
 AGCAGAGGGGAGACTAAGGGCCAAAACCAAAGCCAGAGTCACCCCTGAAGCAGTTAGGGC  
 CTTTCTGGGCCCTCTCTTTACCCCTCCACCCCTCACTCAGCCCCACTACATAGCGAGTCC  
 CGGTTTCTCAGGCTTCCAGACTCGTCTGTGTGTAGGTGGCGGCATGAGCTTAGGGATCT  
 CCATGGCAAAGCACCAAGTGCCGGCCCATTAAGTCTTGGACGGAGAACCCTGTTGCCCT  
 TCCGGCTCTGCCTCTGCTTTCTCTCTCTGCTCCTCTGTCAAGGGCAGGGCTGGTCTTACAG  
 AGGCGGGTCCCGGGAGGATGTCCCGGCTCGAGGATCAGGAAAGCCCATCTCAGAGGGAGA  
 CAGGAGGCTGTTGTCTTGGCCTCAGGAGGAAGGTAGGTCTGAAGGCAGTCCACGTGTACT  
 CCCGGATTCCGGAACGCACGAGCCGCCCTCTGAGATTGAGGAAAGAAGCACGCAGGGGG  
 AGGAAGGAGATGGCCAGGCCCAATCAAAGGCCAGAGGAAACTGGCCGCTTTGCTTGATG  
 GACACCTCGCAAGGGAGCCAAATGTGCGTTGTGCGCTCATCTCTTA

Figure 4